II.   Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

A.   Listing of Claims

1.   (Previously Presented) A video signal processing apparatus, comprising:

a plurality of contour correction modules to correct a digital video signal to be input for a contour; and

a selection module to select any of said plurality of contour correction modules, wherein:

a predetermined contour correction module among said plurality of contour correction modules includes a contour portion detection module to detect a contour portion of said input digital video signal, and a contour portion correction module to correct a contour portion of a digital video signal corrected by one of the contour correction modules other than said predetermined contour correction module; and

said selection module selects a digital video signal output from said contour portion correction module, when the contour portion is detected by said contour portion detection module.

2.   (Previously Presented) The video signal processing apparatus according to claim 1, wherein:

said contour correction module other than said predetermined contour correction module corrects contour by generating an undershoot and an overshoot in the contour portion of said input digital video signal.

3.   (Previously Presented) The video signal processing apparatus according to claim 2, wherein:

said contour portion correction module includes a contour correction signal generation module to generate a contour correction signal in accordance with the contour portion of said input digital video signal, and

a mixing module to mix said contour correction signal from said contour correction signal generation module and the corrected digital video signal from the contour correction module other than said predetermined contour correction module at a predetermined ratio and to suppress the undershoot of said contour-corrected digital video signal; and

said selection module selects an output digital signal of said mixing module, when the contour portion is detected by said contour portion detection module.

4.   (Previously Presented) The video signal processing apparatus according to claim 3, wherein:

said contour portion detection module judges whether the detected contour portion is a rising contour portion or a falling contour portion, and delays detection timing of a period of said contour portion of said input digital video signal when the detected contour portion is falling; and

said contour correction signal generation module generates said contour correction signal in accordance with the contour portion period detected by said contour portion detection module.

5.   (Previously Presented) The video signal processing apparatus according to claim 1, wherein said contour portion detection module comprises:

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a first module to assume a flat portion to exist when a fluctuation of said digital video

signal is within a range of a preset threshold, and

a second module, when a slope between said two flat portions detected by said first

module always ascends or descends and the absolute value of the difference of a signal level in

the slope is higher than a preset threshold, to assume the contour portion of said digital video

signal to exist between the two flat portions.

6.   (Previously Presented) The video signal processing apparatus according to claim

1, wherein said contour portion detection module comprises:

a first module to assume a flat to exist when fluctuation of said digital video signal is

within a range of a preset threshold,

a second module to assume a changing point at which a slope on which the fluctuation of

said digital video signal sequentially ascends or descends moves to a slope on which it descends

or ascends to be a crest of a peak or a root of a valley, and

a third module, when absolute value of a difference of the signal level between flat

portion detected by said first module and changing point detected by said second module is

higher than the preset threshold, to assume the contour portion of said digital video signal to

exist between said flat portion and said changing point.

7.   (Previously Presented) The video signal processing apparatus according to claim

1, wherein said contour portion detection module comprises:

a first module to assume a first changing point at which a slope on which the fluctuation

of said digital video signal subsequently ascends or descends moves to a slope on which it

descends or ascends to be a crest of a peak or a root of a valley and to assume a second changing

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point at which a slope on which it sequentially descends or ascends from said first changing

point and then it ascends or descends to be the root of the valley or the crest of the peak, and

a second module to assume the contour portion of said digital video signal to exist

between said first and second changing points when the absolute value of a difference between

said changing points detected by said first module is higher than a preset threshold.

8.   (Previously Presented) A camera device, comprising:

an imaging module to photograph an object and output an electric signal;

a signal processing module to process the electric signal output from said imaging

module to generate a first digital video signal; and

a video signal processing apparatus according to claim 1, to correct the contour of said

first digital video signal.

Claims 9-10 (Cancelled).

11.   (Currently Amended) An interpolation device, comprising:

a plurality of interpolation [[means]] unit that interpolates a digital video signal to be

input; and

a selection [[means]] unit that selects any of said plurality of interpolation [[means]]

units, wherein:

a predetermined interpolation [[means]] unit among said plurality of interpolation

[[means]] units includes an edge detection [[means]] unit that detects an edge of said digital

video signal and an edge enhancement [[means]] unit that enhances the edge, and

said selection [[means]] <u>unit</u> selects an interpolation signal in which the edge is enhanced by said edge enhancement [[means]] <u>unit</u> when the edge is detected by said edge detection [[means]] <u>unit</u>.

12.   (Currently Amended) The interpolation device according to claim 11, wherein:

said edge enhancement [[means]] <u>unit</u> includes an edge generation [[means]] <u>unit</u> and a mixing [[means]] <u>unit</u>;

said mixing [[means]] <u>unit</u> includes an operation [[means]] <u>unit</u> that mixes an edge signal generated by said edge generation [[means]] <u>unit</u> and an output signal of an interpolation [[means]] <u>unit</u> other than said predetermined interpolation [[means]] <u>unit</u> at a desired ratio; and

said selection [[means]] <u>unit</u> selects an output signal of said mixing [[means]] <u>unit</u> when the edge is detected by said edge detection [[means]] <u>unit</u>.

13.   (Currently Amended) The interpolation device according to claim 12, wherein

said edge generation [[means]] <u>unit</u> generates an edge signal represented in frequency exceeding one half time of sampling frequency of said digital video signal.

14.   (Currently Amended) The interpolation device according to 11, wherein said edge detection [[means]] <u>unit</u> comprises:

a first [[means]] <u>unit</u> for assuming a flat portion to exist when fluctuation of said digital video signal is within a range of a preset threshold; and

a second [[means]] <u>unit</u> for assuming the edge of said digital video signal to exist between two flat portions when a slope between said two portions detected by said first [[means]] <u>unit</u> always ascends or descends and the absolute value of a difference of a signal level on the slope is higher than a preset threshold.

15. (Currently Amended) The interpolation device according to claim 11, wherein said edge detection [[means]] unit comprises:

a first [[means]] unit for assuming a flat portion to exist when fluctuation of said digital video signal is within a range of a preset threshold;

a second [[means]] unit that assumes a changing point at which a slope on which the fluctuation of said digital video signal subsequently ascends or descends moves to a slope on which it descends or ascends to be a crest of a peak or a root of a valley; and

a third [[means]] unit for assuming the edge of said digital video signal to exist between said flat portion and said changing point when absolute value of a difference of the signal level between the flat portion detected by said first [[means]] unit and the changing point detected by said second [[means]] unit is higher than a preset threshold.

16. (Currently Amended) The interpolation device according to claim 11, wherein said edge detection [[means]] unit comprises:

a first [[means]] unit for assuming a first changing point at which a slope on which fluctuation of said digital video signal subsequently ascends or descends moves to a slope on which it descends or ascends to be a crest of a peak or root of a valley and for assuming a second changing point at which a slope on which it sequentially descends or ascends from said first changing point and then ascends or descends to be a root of a valley or a crest of a peak, and

a third [[means]] unit for assuming the edge of said digital video signal to exist between said first and second changing points when absolute value of a difference between said changing points detected by said first [[means]] unit is higher than a preset threshold.

17.   (Currently Amended) A camera device, comprising:

an imaging [[means]] unit for photographing an object and outputting an electric signal;

a signal processing [[means]] unit for processing the electric signal output from said

imaging [[means]] unit and generating a first digital video signal;

a [[means]] unit for generating a second digital video signal of a long sample cycle from

said first digital video signal, using a sample cycle longer than that of said first digital video

signal; and

an interpolation device as in unit according to claim 11, for interpolating a sample from

said second digital video signal.

18.   (Currently Amended) The camera device according to claim 17, wherein:

the [[means]] unit for generating a second digital video signal comprises a memory, and

said memory stores said first digital video signal, reads a part of said first digital video

signal, and outputs said second video signal of an enlarged picture in which a part of the picture

is enlarged using said first digital video signal.

19.   (Currently Amended) An interpolation imaging method for generating a second

digital video signal from a signal-processed first digital video signal obtained by photographing

of an imaging means, and sample interpolating an input the second digital video signal[[,]] by a

plurality of interpolation means[[,]] and selecting and outputting any of a plurality of interpolated

digital video signals from the interpolation means, wherein:

a sample cycle of the second digital video signal is longer than a sample cycle of said

first digital video signal, and

comprising the interpolating and selecting comprises steps of:

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detecting an edge in a period of said ~~input~~ <u>second</u> digital video signal by a predetermined

interpolation means among said plurality of interpolation means;

enhancing the edge; and

selecting the interpolated digital video signal of which the edge is enhanced in the

detected edge period.

Claim 20 (Cancelled).

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